Product Specification

802.11n Wireless ADSL 2/2+ 4-Port Router

ADN-4101

Version 1.2

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Change History:

Revision	Date	Author	Change List
Version 1.2	2011/11/02	Frank Tsai	Add wireless transmit power and receiver sensitivity information.
Version 1.1	2011/05/18	Frank Tsai	Delete the IPv6 feature
Version 1.0	2011/03/08	Frank Tsai	Initial Release

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PRODUCT DESCRIPTION

The PLANET 802.11n Wireless ADSL 2/2+ Router with 1T1R MIMO antenna technology, ADN-4101, provides office and residential users the ideal solution for sharing a high-speed ADSL 2/2+ broadband Internet connection and four-10/100Mbps Fast Ethernet backbone. It can support downstream transmission rates of up to 24Mbps and upstream transmission rates of up to 3.5Mbps. The product supports PPPoA (RFC 2364 - PPP over ATM Adaptation Layer 5), RFC 2684 encapsulation over ATM (bridged or routed), PPP over Ethernet (RFC 2516), and IPoA (RFC1483) to establish a connection with ISP.

With built-in IEEE 802.11b/g/n wireless network capability, all computers and wireless-enabled network devices can connect to ADN-4101 without additional cabling. New 802.11n wireless capability also gives you the highest speed of wireless experience ever. With a compatible wireless card installed in your PC, you can transfer file up to 150Mbps (transfer data rate). The radio coverage is also doubled, so you don't need to worry if the size of your office or house is big.

To secure the wireless communication, ADN-4101 supports most up-to-date encryption, WEP, and WPA-PSK/ WPA2-PSK. In order to simplify the security settings, ADN-4101 supports WPS configuration with PBC/PIN type. Your whole wireless network can be secured.

Via the user-friendly management interface, ADN-4101 can be managed by workstations running standard web browsers. Furthermore, ADN-4101 provides DHCP server, NAT, Virtual Server, DMZ, Access Control, IP Filter, DDNS, and UPnP capability.

ADN-4101 also serves as an Internet firewall, protecting your network from being accessed by outside users. It provides the natural firewall function (Network Address Translation, NAT). All incoming and outgoing IPs are monitored and filtered. Moreover, it can be configured to block internal users from accessing to the Internet.

PRODUCT FEATURES

Internet Access Features

- **Shared Internet Access** All users on the LAN can access the Internet through ADN-4101 using only a single external IP Address. The local (invalid) IP Addresses are hidden from external sources. This process is called NAT (Network Address Translation).
- **Built-in ADSL 2/2+ Modem** ADN-4101 provides ADSL 2/2+ modem, and supports all common ADSL connections.
- **PPPoE, PPPoA, and Direct Connection Support** Various WAN connections are supported by ADN-4101.
- **Multiple PVCs for Triple-Play Service (Data, IPTV, VoIP application)**
  Co work with data, IPTV and IP telephony services protocol through specific PVCs at the same time.
- **Fixed or Dynamic IP Address** On the Internet (WAN port) connection, ADN-4101 supports both Dynamic IP Address (IP Address is allocated on connection) and Fixed IP Address.

Advanced Internet Functions

- **QoS** (Quality of Service) divides this capacity between the different applications and provides underplayed, continuous data transfer where data packets with higher priority are given preference.
- **Firewall** Supports simple firewall with NAT technology and provides option for access control from Internet, like Telnet, FTP, TFTP, HTTP, SNMP, and ICMP services. It also supports IP/MAC /Application/URL filtering.
- **Port Forwarding (Virtual Server)** This feature allows Internet users to access Internet servers on your LAN. The required setup is quick and easy.
- **DMZ Support** ADN-4101 can translate public IP addresses to private IP address to allow unrestricted 2-way communication with Servers or individual users on the Internet. This provides the most flexibility to run programs, which could be incompatible in NAT environment.
- **Parental Control and Scheduling** ADN-4101 provides parents to help protect their children and set restrictions while surfing Internet.
- **Universal Plug and Play (UPnP)** UPnP allows automatic discovery and configuration of the Broadband Router. UPnP is supported by Windows ME, XP, or later.
- **Dynamic DNS Support** When used with the Virtual Servers feature, ADN-4101 allows users to connect to Servers on your LAN using a Domain Name, even if you have a dynamic IP address which changes every time you connect.
- **RIP Routing** ADN-4101 supports RIPv1/2 routing protocol for routing capability.

- **Simple Network Management Protocol (SNMP)** It is an easy way to remotely manage the router via SNMP.

LAN Features

- **4-Port Switch** ADN-4101 incorporates a 4-Port 10/100BaseT switching hub, making it easy to create or extend your LAN.
- **DHCP Server Support D**ynamic **H**ost **C**onfiguration **P**rotocol provides a dynamic IP address to PCs and other devices upon request. ADN-4101 can act as a DHCP Server for devices on your local LAN and WLAN.

Wireless Features

- **Standards Compliant** ADN-4101 complies with IEEE 802.11n wireless technology capable of up to 150Mbps data rate.
- **Dipole Antenna with MIMO Technology** ADN-4101 provides farther coverage, less dead spaces and higher throughput with 1T1R MIMO technology.
- **Support IEEE 802.11b, g and 802.11n Wireless Station** The 802.11n standard provides for backward compatibility with the 802.11b and 802.11g standard, so 802.11b, 802.11g, and 802.11n can be used simultaneously.
- **WEP Support** WEP (Wired Equivalent Privacy) is included. Key sizes of 64 Bit and 128 Bit are supported.
- **WPS Push Button Control** ADN-4101 supports WPS (Wi-Fi Protected Setup) to easy connect wireless network without configuring the security.
- **WPA-PSK Support** WPA-PSK_TKIP and WPA2-PSK_AES encryption are supported.
- **Wireless MAC Access Control** The Wireless Access Control feature can check the MAC address (hardware address) of Wireless stations to ensure that only trusted Wireless Stations can access your LAN.
- **WDS** ADN-4101 supports wireless distribution system; it allows the wireless interconnection of access point in an IEEE 802.11 network.

PRODUCT SPECIFICATION

MAIN COMPONENT

Chipset: RTL8672VK

RAM: 16MB

Flash: 4MB

FUNCTIONAL SPECIFICATIONS

Product		802.11n Wireless ADSL 2/2+ 4-Port Router
Model		ADN-4101A / ADN-4101B
Hardware		
Standard		Compliant with ADSL Standard - Full-rate ANSI T1.413 Issue 2 - G.dmt (ITU G.992.1) - G.lite (ITU G.992.2) - G.hs,Multimode (ITU G.994.1) Capable of ADSL2 Standard - G.dmt.bis (ITU G.992.3) Capable of ADSL2+ Standard - G.dmt.bisplus (ITU G.992.5) - Reach Extended ADSL (RE ADSL) Support Annex A, B, M, L
Protocol		RFC 2364 - PPP over ATM (LLC/VCMUX) RFC 2516 - PPP over Ethernet (LLC/VCMUX) RFC 1483 - Classic IP over ATM (LLC/VCMUX) RFC 2684 - Bridged IP over ATM (LLC/VCMUX) RFC 2684 - Routed IP over ATM (LLC/VCMUX)
AAL and ATM Support		Support up to 8 PVCs ATM Forum UNI 3.1/4.0 PVC VC and LLC Multiplexing Integrated ATM AAL5 support(UBR,CBR,VBR-rt, and VBR-nrt) 0～255 VPI plus 1～65535 VCI address range OAM F4 & F5 Segment end-to-end loop-back, AIS, and RDI OAM cells
Ports	**LAN**	4 x Ethernet (10/100Mbps, Auto-Negotiation, Auto MDI/MDI-X)
	WLAN	1 x 802.11b/g/n Access Point with one 2dBi dipole antenna
	WAN	1 x RJ-11
LED Indicators		PWR, Link, Data, LAN 1~4, WLAN, WPS
Button		WLAN, Reset, WPS, Power
Max. Concurrent Sessions		2048
Wireless Standard		IEEE 802.11b, g and 802.11n
Wireless Frequency		2.4 to 2.4835GHz (Industrial Scientific Medical Band)
Wireless Channels		Maximum 14 Channels, depending on regulatory authorities
Wireless Data Encryption		64 bit / 128 bit WEP, WPA-PSK / WPA2-PSK, and WPS PBC
Wireless Data Rate		Maximum up to 150 Mbps IEEE 802.11b: 1/2/5.5/11Mbps IEEE 802.11g: 6/9/12/18/24/36/48/54Mbps IEEE 802.11n: 14/29/43/58/87/116/130/144Mps in 20MHz 30/60/90/120/150Mbps in 40MHz

Transmit Power	11b: 16.5dBm ± 1.5dBm 11g: 14dBm ± 1.5dBm 11n HT20M:13dbm± 1.5dBm 11n HT40M: 13dbm± 1.5dBm
Receiver Sensitivity	802.11b: ＜-80dBm 802.11g: ＜-68dBm 802.11n HT20M: ＜-64dbm 802.11N HT40M: ＜-61dbm
Software	
Protocols/Features	NAT supports PAT and multimedia applications NAT, Static Routing, and RIPv1/2 Transparent Bridging Dynamic Domain Name System (DDNS) SNTP DNS relay and IGMP proxy DMZ and Virtual Server Quality of Service (QoS) for Traffic Prioritization TR-069 Ready UPnP
Security	PPP over PAP (Password Authentication Protocol, RFC1334) PPP over CHAP (Challenge Authentication Protocol, RFC1994) DoS Protection Access Control ACL (Access Control) IP/MAC /Application/URL Filter Stateful Packet Inspection (SPI) Firewall Password protection for system management
Management	Web-based configuration Embedded Telnet server for remote and local management Firmware upgraded and configuration data upload/download via WEB SNMP v1/v2c MIB supported Support DHCP Server/Client/Relay Built-in Diagnostic tool TR-069
Environment Specification	
Dimension (W x D x H)	176 x 124 x 35 mm (W x D x H)
Power	12V DC, 0.8A
Temperature and Humidity	Operating temperature: 0 ~ 50 Degree C Storage temperature: -10 ~ 70 Degree C Humidity: 10 ~ 95% non-condensing
Emission	FCC, CE

PHYSICAL SPECIFICATION

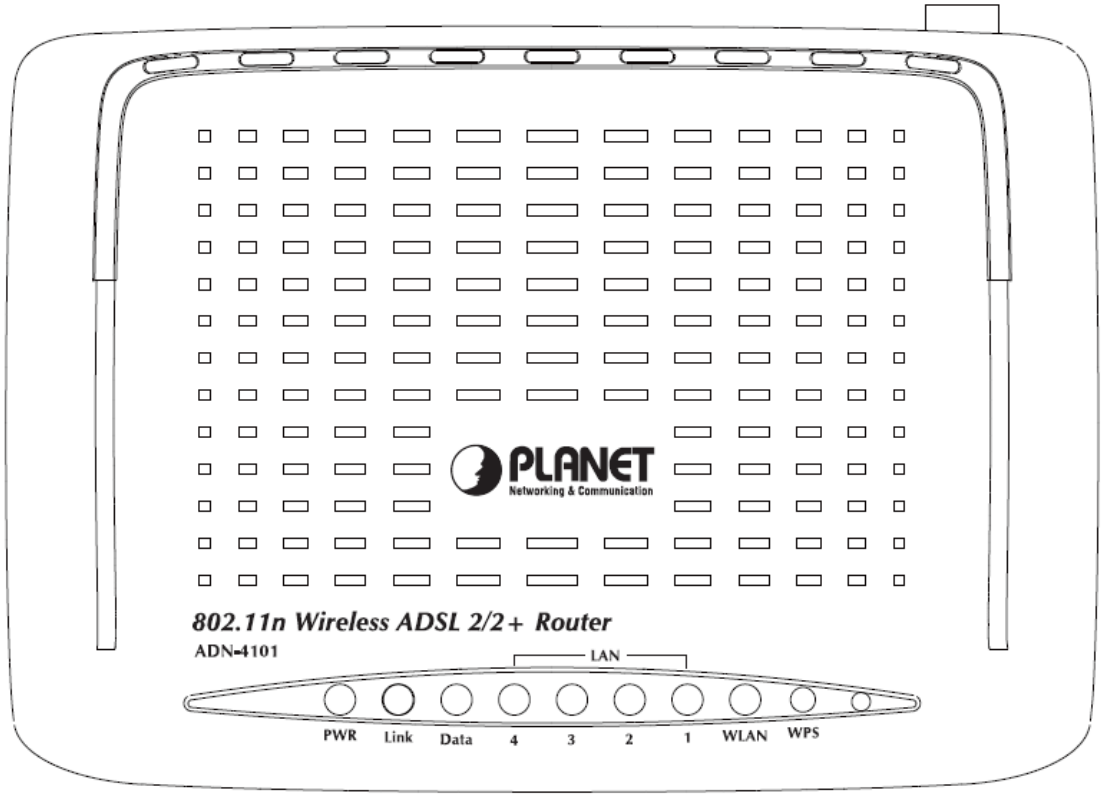
Dimension

176 x 124 x 35mm (W x D x H)

Weight

295 g

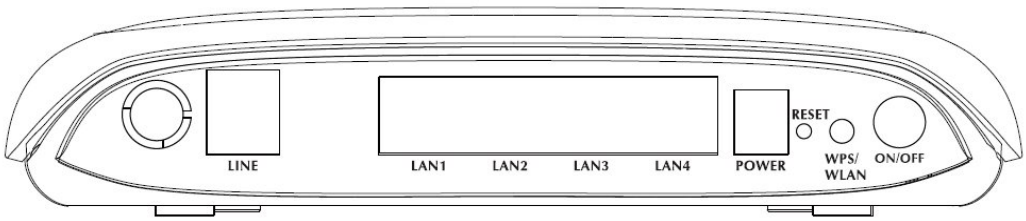
Front Panel



LED Indicator

LED	State	Description
PWR	Green	When the router is powered on and in ready state
	Red	The devise is being turned on and booting
	OFF	When the router is powered off
Link	ON	Successful connection between ADSL modem and telecom's network
	Flashing	Modem is trying to establish a connection to telecom's network
Data	Off	No Internet connection.
	Green	The users can access the Internet.
	Red	Device attempts to become IP connected but fails.
LAN 1-4	ON	Link
	Flashing	TX or RX activity
WLAN	ON	The Wireless Interface is ready
	Flashing	The Wireless data is transmitting
	OFF	The Wireless Interface is disable
WPS	Off	WPS service is not during using, or WPS is setup successfully.
	Flashing	WPS service tries to establish.

Rear Panel



Port and Button Definition

Connector	Description
POWER Button	The power button is for turn on or turns off the router.
WPS / WLAN	Press 1~2 seconds can enable and disable the wireless function. Press 5 seconds can enable WPS function of the wireless clients, the router and clients will automatically configure the security key and connect directly.
Reset	The reset button can restore the default settings of device. To restore factory defaults, keep the device powered on and push a paper clip into the hole. Press down the button over 5 seconds and then release.
Power	Power connector with 12V DC, 0.8A
LAN 1-4	Router is successfully connected to a device through the corresponding port (1, 2, 3, or 4). If the LED is flashing, the Router is actively sending or receiving data over that port.
Line	The RJ-11 connector allows data communication between the modem and the ADSL network through a twisted-pair phone wire.

ENVIRONMENTAL SPECIFICATION

Operating

Temperature: 0~50 Degree C

Relative Humidity: 10~95% (non-condensing)

Storage

Temperature: -10~70 Degree C

Relative Humidity: 10~95% (non-condensing)

ELECTRICAL SPECIFICATION

Input Voltage: 12V DC, 0.8A

REGULATORY COMPLIANCE

FCC Part 15 Class B

CE Class B

BASIC PACKAGING

- ADN-4101 Unit x 1
- Power Adapter x 1
- Quick Installation Guide x 1
- User's Manual CD x 1
- RJ-11 cable x 2
- RJ-45 cable x 1
- Splitter x 1

PACKAGING INFORMATION

Dimension

280 x 190 x 68 mm (W x D x H)

Weight

755 g (gross weight)